In the Claims:

1. (Original) A computed tomography assembly comprising:

an x-ray gantry assembly;

an x-ray source projecting a beam of x-rays;

a detector assembly positioned opposite said x-ray source, said detector assembly receiving said beam of x-rays after said beam of x-rays pass through an object;

a control mechanism in communication with said x-ray source and said detector assembly, said control mechanism comprising logic adapted to:

execute at least one scout scan of said object, said at least one scout scan producing a first scout scan image;

generate an elliptical patient model based on said first scout scan image;

match said elliptical patient model to a phantom diameter approximation;

generate a dose report based on said phantom diameter approximation; and

display said dose report on a display, said display in communication with said control mechanism.

2. (Original) A computed tomography assembly as described in claim 1, wherein said at least one scout scan comprises two orthogonal scout scans.

3. (Original) A computed tomography assembly as described in claim 1, wherein said at least one scout scan comprises:

a lateral scout scan; and

an anteroposterior scout scan.

4. (Original) A computed tomography assembly as described in claim 1, further comprising:

an elevation reference in communication with said control mechanism; and

wherein said logic is adapted to:

utilize said elevation reference in combination with said at least one scout scan to generate said elliptical patient model.

5. (Original) A computed tomography assembly as described in claim 1, further comprising:

at least one laser position measurement device in communication with said control mechanism; and

wherein said logic is adapted to:

utilize said laser position measurement device in combination with said at least one scout scan to generate said elliptical patient model.

6. (Original) A computed tomography assembly as described in claim 1, further comprising:

at least one sonic displacement device in communication with said control mechanism; and

wherein said logic is adapted to:

utilize said sonic displacement device in combination with said at least one scout scan to generate said elliptical patient model.

7. (Original) A computed tomography assembly as described in claim 1, wherein said logic is adapted to further comprise:

utilizing said elliptical patient model to generate a dose minimized imaging sequence.

8. (Original) A computed tomography assembly as described in claim 7, wherein said dose report is generated by combining said phantom diameter approximation with said dose minimized imaging sequence.

9. (Original) A computed tomography assembly as described in claim 7, wherein dose minimized imaging sequence comprises:

adjusting a bowtie element positioned within said x-ray source to minimize radiation exposure to said object.

10. (Original) A computed tomography assembly as described in claim 7, wherein dose minimized imaging sequence comprises:

adjusting a current modulation of said x-ray source to minimize radiation exposure to said object.

11. (Original) A computed tomography assembly as described in claim 7, wherein dose minimized imaging sequence comprises:

calculating object centering information;

adjusting a current modulation of said x-ray source to compensate for said object centering information.

12. (Original) A computed tomography assembly as described in claim 7, wherein dose minimized imaging sequence comprises:

calculating object centering information;

adjusting a bowtie element positioned within said x-ray source to compensate for said object centering information.

13. (Original) A computed tomography assembly comprising:

an x-ray gantry assembly;

an x-ray source projecting a beam of x-rays;

a detector assembly positioned opposite said x-ray source, said detector assembly receiving said beam of x-rays after said beam of x-rays pass through an object;

a control mechanism in communication with said x-ray source and said detector assembly, said control mechanism comprising logic adapted to:

execute at least one scan of said object, said at least one scan producing a first scan image;

generate an elliptical patient model based on said first scan image;

match said elliptical patient model to a phantom diameter approximation;

generate a dose report based on said phantom diameter approximation;

display said dose report on a display, said display in communication with said control mechanism; and

utilize said elliptical patient model to generate a dose minimized imaging sequence.

14. (Original) A computed tomography assembly as described in claim 13, wherein said dose report is generated by combining said phantom diameter approximation with said dose minimized imaging sequence.

15. (Original) A computed tomography assembly as described in claim 13, wherein dose minimized imaging sequence comprises:

adjusting a bowtie element positioned within said x-ray source to minimize radiation exposure to said object.

16. (Original) A computed tomography assembly as described in claim 13, wherein dose minimized imaging sequence comprises:

adjusting a current modulation of said x-ray source to minimize radiation exposure to said object.

17. (Original) A computed tomography assembly as described in claim 13, wherein dose minimized imaging sequence comprises:

calculating object centering information;

adjusting a current modulation of said x-ray source to compensate for said object centering information.

18. (Original) A computed tomography assembly as described in claim 13, wherein said at least one scan comprises two orthogonal scout scans.

19. (Original) A computed tomography assembly as described in claim 13, wherein said at least one scan comprises a contour displacement sensor scan.

20. (Original) A method of imaging an object utilizing a computed tomography assembly comprising:

executing at least one scout scan of the object, said at least one scout scan producing a first scout scan image;

generating an elliptical patient model based on said first scout scan image using a control mechanism;

matching said elliptical patient model to a phantom diameter approximation using said control mechanism;

generating a dose report automatically based on said phantom diameter approximation; and

display said dose report on a display, said display in communication with said control mechanism.

Claim Rejections

Claims 1-4 and 7-20 were rejected under 35 USC 103(a) as being unpatenable over Segwa (US 2004/0101105A1) in view of Horiuchi (US 2004/0131141A1). Claims 5 and 6 were objected to but deemed allowable if rewritten in independent form.

Claims 1-4 and 7-20 rejected under 35 USC 103(a)

Claims 1-4 and 7-20 were rejected under 35 USC 103(a) as being unpatenable over Segwa (US 2004/0101105A1) in view of Horiuchi (US 2004/0131141A1). Both Horiuchi and Segawa are GE employees and are under an obligation to assign their patents to GE. The present application is also under the obligation to be assigned to GE Medical Systems. Therefore, under 35 USC 103(c), the cited pending applications should be disqualified as prior art. The Applicant notes, however, that the present invention claims more than a mere combination of elliptical patient modeling and the use of a phantom diameter. The present invention claims a control mechanism that automatically matches the elliptical patient model to a phantom diameter to automatically generate a dose report. This interaction is not taught nor rendered obvious by either of the cited references either alone or in combination. That said, the declaration should be sufficient to remove this rejection.

Claims 5 and 6 objected to

Claims 5 and 6 were objected to but deemed allowable if rewritten in independent form. The Applicants thank the Examiner for the recognition of the allowable material. The Applicants have held of transitioning these dependent claims into independent form pending the present response for allowability of the underlying claims.

With this response, it is respectfully submitted that all rejections and objections of record have been overcome and that the case is in condition for examination on the merits.

Should the Examiner have any questions or comments, he is respectfully requested to contact the undersigned.

Respectfully submitted,

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